SECOND HIGH RESOLUTION MARINE METEOROLOGY WORKSHOP

15 and 16 April 2004 Silver Spring, MD

Chairman: *Mr. Shawn Smith, COAPS, The Florida State University*

Hosts: *Dr. Michael Johnson and Dr. Diane Stanitski*

Sponsor: *NOAA/OGP/OCO*

Executive Summary

On 15 and 16 April 2004, the NOAA Office of Climate Observation hosted the *2nd High-Resolution Marine Meteorology (HRMM) Workshop* in Silver Spring, Maryland. The workshop focused on implementing the recommendations from the *Workshop on High-Resolution Marine Meteorology* held in Tallahassee, FL on 3-5 March 2003 (see http://www.coaps.fsu.edu/RVSMDC/marine_workshop/Workshop.html). The HRMM community is working to improve access to calibrated, quality-controlled, surface marine meteorological data collected *in-situ* by automated weather systems (AWS) on ships and moored platforms. New topics included soliciting user community input on the application of marine AWS data and determining how to best interface HRMM activities with other national and international ocean observing programs.

The chairman, Shawn R. Smith, organized a workshop panel with representatives from the scientific and operational marine observational communities. Participants represented six NOAA facilities (ETL, OAR, NCDC, NODC, NWS/NCEP, and PMEL), the Brookhaven National Laboratory, and the U.S. Coast Guard. The university community was represented by the Woods Hole Oceanographic Institution, the Scripps Institution of Oceanography, the University of Miami, Columbia University, and the Florida State University. International representatives were present from CSIRO (Australia), JCOMM, WCRP, and GOOS. Program managers from NOAA/OGP/OCO and the National Science Foundation were also in attendance.

Topics of discussion included progress on implementing the first workshop recommendations, setting priorities for the HRMM program, developing requirements for AWS observations, setting goals for the coming year, assessing user community needs, and identifying opportunities for international collaboration. The workshop opened with a poster session highlighting achievements of the past year. Invited talks in each subsequent session focused on key topics and stimulated round-table discussions.

Progress in the last year includes (1) establishing a data assembly center for AWS observations from U.S. sponsored research and merchant ships, (2) securing funding to develop a surface flux standard instrument suite for onboard instrument comparison and an online handbook for meteorological measurements at sea, (3) initiating communication with vessel operators (e.g., NOAA, UNOLS, USCG), and (4) soliciting support and input from the U.S. and international marine and climate science community. Several pilot projects were discussed to further these activities.

The panel recommended that the HRMM program focus first on improving access to AWS data collected by U.S. research vessels, then focus on data from AWS deployed on merchant ships and international research vessels operating in the polar oceans. Close collaboration with established mooring programs is anticipated and desired. The panel identified a list of required navigation, meteorology, and near surface ocean parameters to meet the science objectives outlined at the first workshop. In addition, the panel intends to petition UNOLS and other cooperating vessel programs to agree to a new data policy whereby access to underway meteorology and thermosalinograph data would be free and open by default and the data would be exempt from the standard 2-year proprietary hold by chief scientists. A chief scientist would have to specifically request any hold on these data. Free and open access will allow marine AWS observations to become part of a sustained ocean observing system, which in turn will support their use by the modeling and remote sensing communities. The recommended focus of international collaboration is through the WMO VOSClim program, WCRP working group on surface fluxes, and development of the marine handbook (in partnership with the CLIVAR hydrographic program and the International Ocean Carbon Coordination Project). Finally, the panel agreed that periodic HRMM workshops do provide an important forum for the exchange of ideas and methods; they should be continued and expanded to include additional data users and developers of new marine AWS technology.